

# BIOINFORMATICALLY DETECTABLE GROUP OF NOVEL REGULATORY BACTE- RIAL AND BACTERIAL ASSOCIATED OLIGONUCLEOTIDES AND USES THEREOF

## Abstract

The present invention relates to a first group of novel bacterial and human associated oligonucleotides, here identified as "Genomic Address Messenger" or "GAM" oligonucleotide, and a second group of novel operon-like bacterial and human polynucleotides, here identified as "Genomic Record" or "GR" polynucleotide. GAM oligonucleotides selectively inhibit translation of known "target" genes, many of which are known to be involved in various bacterial infections. Nucleic acid molecules are provided respectively encoding 21,916 bacterial and 6,100 human GAM precursor oligonucleotides, and 6,056 bacterial and 430 human GR polynucleotides, as are vectors and probes both comprising the nucleic acid molecules, and methods and systems for detecting GAM oligonucleotides and GR polynucleotides and specific functions and utilities thereof, for detecting expression of GAM

oligonucleotides and GR polynucleotides, and for selectively enhancing and selectively inhibiting translation of the respective target genes thereof.